IN THE CLAIMS:

Please amend the claims and add new claims 433-446 as shown below.

1-236. (Previously cancelled)

237. (Currently amended) Nanoparticle-oligonucleotide conjugates which are nanoparticles having oligonucleotides attached to them, the oligonucleotides being present on a surface of the nanoparticles at a surface density sufficient so that the conjugates are stable, at least some of the oligonucleotides having a sequence complementary to at least one portion of the sequence of a nucleic acid or another oligonucleotide..

238. (Currently amended) The conjugates of Claim 237 wherein the oligonucleotides are present on the surface of the nanoparticles at a surface density of at least 10 picomoles/cm^2

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239. (Currently amended) The nanoparticles of Claim 238 wherein the oligonucleotides are present on the surface of the nanoparticles at a surface density of at least 15 picomoles/cm^2.

240. (Currently amended) The nanoparticles of Claim 239 wherein the oligonucleotides are present on the surface of the nanoparticles at a surface density of from about 15 picomoles/cm^2 to about 40 picomoles/cm^2.

241. (Original) The nanoparticles of Claim 237 wherein the nanoparticles are metal nanoparticles or semiconductor nanoparticles.

242. (Original) The nanoparticles of Claim 241 wherein the nanoparticles are gold nanoparticles.

243. (Original) Nanoparticles having oligonucleotides attached to them, the oligonucleotides comprising at least one type of recognition oligonucleotides, each of the recognition oligonucleotides comprising a spacer portion and a recognition portion, the spacer

portion being designed so that it is bound to the nanoparticles, the recognition portion having a sequence complementary to at least one portion of the sequence of a nucleic acid or another oligonucleotide.

244. (Original) The nanoparticles of Claim 243 wherein the spacer portion has a moiety covalently bound to it, the moiety comprising a functional group through which the spacer portion is bound to the nanoparticles.

245. (Original) The nanoparticles of Claim 243 wherein the spacer portion comprises at least about 10 nucleotides.

246. (Original) The nanoparticles of Claim 245 wherein the spacer portion comprises from about 10 to about 30 nucleotides.

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247. (Original) The nanoparticles of Claim 243 wherein the bases of the nucleotides of the spacer portion are all adenines, all thymines, all cytosines, all uracils or all guanines.

248. (Original) The nanoparticles of Claim 243 wherein the oligonucleotides are present on surface of the nanoparticles at a surface density of at least 10 picomoles/cm^2.

249. (Original) The nanoparticles of Claim 248 wherein the oligonucleotides are present on surface of the nanoparticles at a surface density of at least 15 picomoles/cm^2.

250. (Original) The nanoparticles of Claim 249 wherein the oligonucleotides are present on surface of the nanoparticles at a surface density of from about 15 picomoles/cm^2 to about 40 picomoles/cm^2.

251. (Original) The nanoparticles of Claim 243 wherein the nanoparticles are metal nanoparticles or semiconductor nanoparticles.

252. (Currently amended) The [method] nanoparticles of Claim 251 wherein the nanoparticles are gold nanoparticles.

253. (Original) Nanoparticles having oligonucleotides attached to them, the oligonucleotides comprising:

at least one type of recognition oligonucleotides, each of the types of recognition oligonucleotides comprising a sequence complementary to at least one portion of the sequence of a nucleic acid or another oligonucleotide; and

a type of diluent oligonucleotides.

254. (Currently amended) The nanoparticles of Claim 253 wherein[,] each of the recognition oligonucleotides comprises a spacer portion and a recognition portion, the spacer portion being designed so that it is bound to the nanoparticles, the recognition portion having a sequence complementary to at least one portion of the sequence of a nucleic acid or another oligonucleotide.

A2 cont.

255. (Original) The nanoparticles of Claim 254 wherein the spacer portion has a moiety covalently bound to it, the moiety comprising a functional group through which the spacer portion is bound to the nanoparticles.

256. (Original) The nanoparticles of Claim 254 wherein the spacer portion comprises at least about 10 nucleotides.

257. (Original) The nanoparticles of Claim 256 wherein the spacer portion comprises from about 10 to about 30 nucleotides.

258. (Original) The nanoparticles of Claim 254 wherein the bases of the nucleotides of the spacer portion are all adenines, all thymines, all cytosines, all uracils or all guanines.

259. (Original) The nanoparticles of Claim 253 wherein the oligonucleotides are present on surface of the nanoparticles at a surface density of at least 10 picomoles/cm^2.

260. (Original) The nanoparticles of Claim 259 wherein the oligonucleotides are present on surface of the nanoparticles at a surface density of at least 15 picomoles/cm^2.

261. (Original) The nanoparticles of Claim 260 wherein the oligonucleotides are present on surface of the nanoparticles at a surface density of from about 15 picomoles/cm^2 to about 40 picomoles/cm^2.

262. (Original) The nanoparticles of Claim 254 wherein the diluent oligonucleotides contain about the same number of nucleotides as are contained in the spacer portions of the recognition oligonucleotides.

A2 cont.

263. (Original) The nanoparticles of Claim 262 wherein the sequence of the diluent oligonucleotides is the same as that of the spacer portions of the recognition oligonucleotides.

264. (Original) The nanoparticles of Claim 253 wherein the nanoparticles are metal nanoparticles or semiconductor nanoparticles.

265. (Original) The nanoparticles of Claim 264 wherein the nanoparticles are gold nanoparticles.

266-432. (Previously cancelled)

433. (New) Nanoparticles having at least two types of oligonucleotides attached thereto, the oligonucleotides being present on a surface of the nanoparticles at a surface density of at least 10 picomoles/cm^2, at least some of the oligonucleotides having a sequence complementary to at least one portion of the sequence of a nucleic acid or another oligonucleotide.

434. (New) The nanoparticles of Claim 433 wherein the oligonucleotides are present on the surface of the nanoparticles at a surface density of at least 15 picomoles/cm^2.

435. (New) The nanoparticles of Claim 433 wherein the oligonucleotides are present on the surface of the nanoparticles at a surface density from about 15 picomoles/cm^2 to about 40 picomoles/cm^2.

436. (New) The nanoparticles of Claim 433 wherein the nanoparticles are metal nanoparticles or semiconductor nanoparticles.

437. (New) The nanoparticles of Claim 436 wherein the nanoparticles are gold nanoparticles.

A2 cont.

438. (New) The nanoparticles of Claim 433 wherein at least one type of oligonucleotides comprises recognition oligonucleotides, the recognition portion having a sequence complementary to at least one portion of the sequence of a nucleic acid or another oligonucleotide.

439. (New) The nanoparticles of Claim 438 wherein each of the recognition oligonucleotides comprising a spacer portion and a recognition portion, the spacer portion being designed so that it is bound to the nanoparticles.

440. (New) The nanoparticles of Claim 439 wherein the spacer portion has a moiety covalently bound to it, the moiety comprising a functional group through which the spacer portion is bound to the nanoparticles.

441. (New) The nanoparticles of Claim 439 wherein the spacer portion comprises at least about 10 nucleotides.

442. (New) The nanoparticles of Claim 441 wherein the spacer portion comprises from about 10 to about 30 nucleotides.

443. (New) The nanoparticles of Claim 439 wherein the bases of the nucleotides of the spacer portion are all adenines, all thymines, all cytosines, all uracils or all guanines.

A2 cont.

444. (New) The nanoparticles of any one of Claims 433 or 438 wherein at least one type of oligonucleotides comprise diluent oligonucleotides .

445. (New) The nanoparticles of Claim 444 wherein the diluent oligonucleotides contain about the same number of nucleotides as are contained in the spacer portions of the recognition oligonucleotides.

446. (New) The nanoparticles of Claim 445 wherein the sequence of the diluent oligonucleotides is the same as that of the spacer portions of the recognition oligonucleotides.